

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A paper feeding apparatus, comprising:
 - a paper feed device comprising:
 - a paper loading board to load paper obliquely;
 - an abutting surface arranged in a lower part of the paper loading board, the abutting surface abuts a bottom end of paper loaded on the paper loading board;
 - a feed roller abuts a surface of the paper to feed the paper to a predetermined direction sheet by sheet; and
 - a manual feed tray openably/closably attached to the paper loading board;
 - a stopper located at a lower position when the paper is fed from the manual feed tray, the stopper arranged to move vertically with respect to the abutting surface to lift up the bottom end of the paper when positioned higher than the abutting surface; and
 - a stopper drive device lowers the stopper below the abutting surface when the manual feed tray is opened for paper insertion.
2. (Previously Presented) The paper feeding apparatus according to Claim 1, wherein the stopper drive device comprises a linking mechanism arranged between the manual feed tray and the stopper to lower the stopper when the manual feed tray is opened for paper insertion.
3. (Previously Presented) The paper feeding apparatus according to Claim 2, wherein the stopper drive device further comprises:
 - a rotational shaft facing the stopper as the linking mechanism;
 - a cam fixed on the rotational shaft; and

a projection portion fixed on one axial end of the rotational shaft; and
wherein the stopper comprises:

a stopper body abuts the bottom end of paper loaded on the paper
loading board; and

an abutting unit extends from the stopper body and abuts the cam to
provide vertical movement to the stopper body depending on a position of the cam;

wherein the manual feed tray pushes the projection portion when opened for a
paper insertion, and

wherein the cam moves to another position to lower the stopper body when the
projection portion is pushed.

4. (Previously Presented) The paper feeding apparatus according to Claim 3,
further comprising:

a change detection device to detect a change in an open/closed state of the
manual feed tray; and

a control device operably connected to the stopper drive device to permit the
stopper drive device to raise the stopper when the change detection device detects that the
state of the manual feed tray has changed from the open state to the closed state.

5. (Previously Presented) The paper feeding apparatus according to Claim 1,
further comprising:

a change detection device to detect a change in an open/closed state of the
manual feed tray; and

a control device operably connected to the stopper drive device to permit the
stopper drive device to lower the stopper when detecting that the state of the manual feed tray
has changed from the closed state to the open state to permit the paper insertion.

6. (Original) The paper feeding apparatus according to Claim 5, wherein the control device permits the stopper drive device to raise the stopper when the change detection device detects that the state of the manual feed tray has changed from the open state to the closed state.

7. (Previously Presented) The paper feeding apparatus according to Claim 4, the stopper drive device further comprising:
a first gear arranged on one axial end of the rotational shaft to rotate with the rotational shaft;
a second gear geared with the first gear; and
a rotational force transmission device to transmit rotational force given from a driving source to the second gear;
wherein the control device drives the driving source so that the cam moves to a position to lower the stopper body when the manual feed tray is opened to permit paper insertion, and to another position to raise the stopper body when the manual feed tray is not opened.

8. (Previously Presented) The paper feeding apparatus according to Claim 7, wherein the second gear comprises a rotation limit device which does not transmit a rotational force to the first gear in a descendent direction of the stopper after the stopper is lowered.

9. (Previously Presented) An image formation apparatus, comprising:
a paper feeding apparatus including:
a paper feed device comprising:
a paper loading board to load paper obliquely;
an abutting surface arranged in a lower part of the paper loading board, the abutting surface abuts a bottom end of paper loaded on the paper loading board;

a feed roller abutting a surface of the paper to feed the paper to a predetermined direction sheet by sheet; and

a manual feed tray openably/closably attached to the paper loading board;

a stopper located at a lower position when the paper is fed from the manual feed tray, the stopper arranged to move vertically with respect to the abutting surface to lift up the bottom end of the paper when positioned higher than the abutting surface; and

a stopper drive device lowers the stopper below the abutting surface when the manual feed tray is opened for paper insertion;

an image formation device which forms an image on the paper;

a paper transfer device transfers paper fed from the paper feeding apparatus to the image formation device;

a paper detection device arranged in the paper transfer device detects when paper is fed to the paper transfer device; and

a feed control device drives the paper feeding apparatus to feed the paper on the paper loading board to the paper transfer device when a command to select an automatic paper feed is externally input to select a paper feed from the paper loading board, subsequently drives the paper transfer device to transfer the paper fed from the paper feeding apparatus to the image formation device when the paper detection device detects the presence of paper, and drives the paper transfer device to transfer paper inserted from the manual feed tray to the image formation device.

10. (Previously Presented) The image formation apparatus according to Claim 9, further comprising:

an opening/closing detection device to detect whether the manual feed tray is open for inserting paper; and

a first annunciation device operably connected to the image formation apparatus prohibits the process of the feed control device and announces that paper is jammed within the image formation apparatus when a command to select an automatic paper feed is input, if the opening/closing detection device detects that the manual feed tray is not open and the paper detection device detects the presence of paper.

11. (Previously Presented) The image formation apparatus according to Claim 9, further comprising:

an opening/closing detection device to detect whether the manual feed tray is open for inserting paper; and

a first annunciation device announces a requirement for a paper insertion from the manual feed tray when a command to select a manual paper feed is externally input, if the opening/closing detection device detects that the manual feed tray is open to permit the paper insertion, and if the paper detection device detects that paper has not been fed.

12. (Previously Presented) The image formation apparatus according to Claim 9, further comprising:

an opening/closing detection device to detect whether the manual feed tray is open to permit the paper insertion;

a command input device for inputting a feed initiation command, the feed initiation command initiates a paper feed from the manual feed tray; and

a first annunciation device to announce a requirement for an input of the feed initiation command when a command to select a manual paper feed is externally input, if the opening/closing detection device detects that the manual feed tray is open to permit the paper insertion, and the paper detection device detects the presence of paper, wherein the feed control device allows the paper transfer device to initiate a paper transfer when the feed initiation command is inputted from the command input device.

13. (Previously Presented) The image formation apparatus according to Claim 9, further comprising a change detection device, wherein a driving source which drives the paper transfer device is configured to execute a predetermined preprocess other than a paper transfer prior to an image formation when driving the paper transfer device in an opposite direction to a direction of paper transfer; and

the feed control device executes the preprocess by driving the driving source in the opposite direction when the change detection device detects that a state of the manual feed tray has changed from a closed state to an open state to permit the paper insertion.

14. (Currently Amended) A computer-readable storage medium for storing thereon a control program executable by a processor for controlling to achieve the functions of the change detection device and the control device of the paper feeding apparatus according to Claim 4 by a computer processing. Claim 4, the program comprising:

detecting a change in an open/closed state of the manual feed tray; and
raising the stopper when the detection of the manual feed tray has changed from the open state to the closed state.

15. (Currently Amended) A computer-readable storage medium for storing thereon a control program to achieve the functions of the paper detection device, opening/closing detection device and the first annunciation device of executable by a processor for controlling the image formation according to Claim 10. Claim 10, the program comprising: by a computer processing.

detecting whether the manual feed tray is open for inserting paper; and
prohibiting the process of the feed control device and announcing that paper is jammed within the image formation apparatus when selection of an automatic paper feed is

inputted, if the detection of the manual feed tray is not open and the presence of paper is detected.

16. (Currently Amended) A computer-readable storage medium for storing thereon a control program to achieve the functions of the paper detection device, the opening/closing detection device and the second annunciation device of executable by a processor for controlling the image formation according to Claim 11 by a computer processing. Claim 11, the program comprising:

detecting whether the manual feed tray is open for inserting paper; and
announcing a requirement for a paper insertion from the manual feed tray
when the selection of the manual paper feed is externally inputted, if the detection of the
manual feed tray is open to permit the paper insertion, and if the paper has not been fed.

17. (Currently Amended) A computer-readable storage medium for storing thereon a control program to achieve the functions of the paper detection device, the opening/closing detection device, the third annunciation device and the feed control device of executable by a processor for controlling the image formation apparatus according to Claim 12 by a computer processing. Claim 12, the program comprising:

detecting whether the manual feed tray is open to permit the paper insertion;
initiating a paper feed from the manual feed tray; and
announcing a requirement for an input of the feed initiation command when
the selection of a manual paper feed is externally inputted, if the detection of the manual feed
tray is open to permit the paper insertion, and the presence of paper is detected, and initiating
a paper transfer when the feed initiation command is inputted.

18. (Currently Amended) A computer-readable storage medium for storing thereon a control program to achieve the functions of the change detection device, the preprocess execution device and the feed control device of executable by a processor for

controlling the image formation according to Claim 13 by a computer processing Claim 13,
the program comprising:

executing a predetermined preprocess other than a paper transfer prior to an
image formation when driving the paper transfer device in an opposite direction to a direction
of paper transfer; and

executing the preprocess by driving the driving source in the opposite direction
when detecting a state of the manual feed tray has changed from a closed state to an open
state to permit the paper insertion.

19. (Previously Presented) The paper feeding apparatus according to Claim 1,
wherein the stopper raises and lowers each time the paper is fed from the paper loading board.